# Product Specification Sheet

WNC-125ELHB

Wireless RFID Hallway Elopement Locator



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The WNC-125ELHB Wireless RFID Hallway Elopement Locator is an advanced, commercial-grade tracking and wandering prevention portal designed for memory care facilities, assisted living communities, psychiatric wards, and pediatric units. It creates an invisible, localized RFID detection zone across hallway corridors, exit points, and restricted thresholds.

When a resident or patient wearing a calibrated RFID active wristband or pendant enters the tracking field, the WNC-125ELHB detects the tag's unique signature and transmits an automated emergency signal over a secure 900 MHz wireless mesh network to the central master console. It can also trigger localized alerts such as door locks and hallway visual displays to help prevent unauthorized egress.

## Specifications

- **RFID Scanning Frequency:** 125 kHz (Low Frequency)
- **Data Transmission Network:** 900 MHz Spread Spectrum (Frequency Hopping)
- **Detection Field Range:** Adjustable from 2 to 15 feet (0.6 m to 4.5 m) radial field
- **Relay Outputs:** 2 Form-C dry-contact relays, rated 2A at 30V DC
- **Auxiliary Input Interfaces:** Keypad/Card Reader Bypass Input; Fire Alarm Tie-In Input
- **Primary Power Supply:** 12V DC to 24V DC input via localized AC adapter
- **Secondary Backup Power:** Internal trickle-charged rechargeable battery pack option
- **Mounting Configuration:** Wall-mount surface box or flush-mount ceiling installation
- **Dimensions**: Approximately 8.5" × 11.0" × 2.2" (21.6 cm × 27.9 cm × 5.6 cm)

## Architects' and Engineers' Specifications

- Provide and install the WNC-125ELHB Wireless RFID Hallway Elopement Locator as part of a patient wandering and elopement prevention system.
- Utilize a 125 kHz RFID proximity scanning array with a 900 MHz frequency-hopping spread-spectrum (FHSS) wireless transmitter.
- Provide an adjustable radial tracking field from 2 to 15 feet (0.6 m to 4.5 m) for standard and wide double-door hallway corridors.
- Detect compatible active RFID patient tags and transmit patient identification, location, and priority elopement alarm information to the central nurse call computer console.
- Include a minimum of two on-board Form-C dry-contact relays for direct control of magnetic locks or peripheral strobe lights.
- Include a dedicated fire alarm control panel override input for fail-safe release of locked doors during fire alarm activation.
- Provide a low-profile surface- or ceiling-mount enclosure constructed from flame-retardant, high-impact polymers.
- Include exterior diagnostic LEDs for verification of power, wireless connection integrity, and RFID field generation.

## Equipment Options

- Patient & Staff Transmitters: Compatible with WNC-TAG-LF active RFID patient wristbands, specialized wandering ankle tags, and staff escort badges.
- System Integration Backbones: Compatible with WNC-SERVER-UL1069 PC Computer Console, Wireless MV200 Plus Desk Consoles, and WNC-RP-UL1069 Network Repeaters.
- Auxiliary Warning Interfaces: Supports multi-colored corridor dome lights, localized audio buzzers, electronic door strikes, and alphanumeric wireless reader boards.
- Enclosure Enhancements: Optional flush-mount ceiling kit, heavy-duty vandal-resistant polycarbonate protective shield, or outdoor-rated weatherproof housing.

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## Features

- Dual-Frequency Architecture: Uses a localized 125 kHz RFID scanning field with a high-power 900 MHz spread-spectrum transmitter for long-range alert communication.
- Adjustable Proximity Zone: Digitally configurable detection radius from 2 to 15 feet (0.6 m to 4.5 m) to accommodate different hallway dimensions.
- Real-Time Patient Identification: Decodes and transmits patient ID, location text, and timestamp information to the central master monitoring station.
- Supervised System Health: Transmits periodic check-in signals to verify operational status, antenna tuning, and power-line stability.
- On-Board Relay Control: Provides dual programmable dry-contact relays for magnetic door locks, automatic door operators, or localized security sirens.
- Visual Field Status: Exterior-facing LED diagnostics provide visual indication of power status, RFID field activity, and wireless network connectivity.
- Anti-Passback & Tailgating Logic: Uses directional sensing to distinguish between a wandering patient approaching an exit and an authorized staff member escorting a resident.
- Non-Volatile System Memory: Retains field-range configuration, zone profiles, and paired master network IDs through power outages.
- Bypass & Escort Functions: Supports hardwired integration with keypads, proximity card readers, or biometric scanners to allow authorized staff to bypass the elopement zone without triggering a system-wide alarm.

## Compliance and Certification

- **FCC Part 15:** Certified for both intentional 900 MHz radiators and 125 kHz low-frequency transmitter systems.
- **UL Standards:** Components comply with applicable industrial signaling and access-control safety standards and include a fire alarm panel override loop for fail-safe door release during a structural fire event.
- **RoHS:** Compliant with global Restriction of Hazardous Substances requirements, using lead-free solder and non-toxic polymer materials.

## Applications

- Memory care facilities
- Assisted living communities
- Psychiatric wards
- Pediatric units
- Patient wandering prevention
- Hallway and exit-point monitoring
- Restricted-access thresholds
- Elopement prevention systems
- Door and corridor security

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